

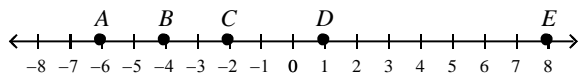
Honors Geometry Chapter 1 Quiz

Multiple Choice

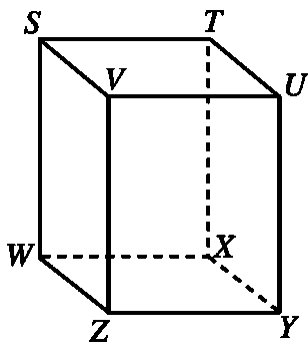
Identify the letter of the choice that best completes the statement or answers the question.

- ____ 1. Based on the pattern, what are the next two terms of the sequence?
 9, 15, 21, 27, ...
 a. 33, 972 b. 39, 45 c. 162, 972 d. 33, 39

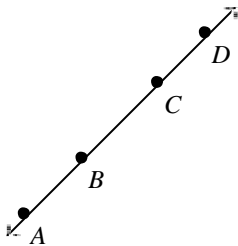
- ____ 2. Which point is the midpoint of \overline{AE} ?



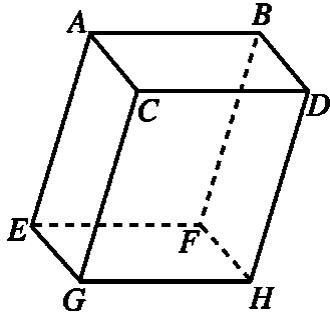
- a. D b. B c. not B, C , or D d. C
- ____ 3. Based on the pattern, make a conjecture about the sum of the first 20 positive even numbers.
- | | | | | |
|----------------------|-----|------|-----|-------------|
| 2 | $=$ | 2 | $=$ | $1 \cdot 2$ |
| $2 + 4$ | $=$ | 6 | $=$ | $2 \cdot 3$ |
| $2 + 4 + 6$ | $=$ | 12 | $=$ | $3 \cdot 4$ |
| $2 + 4 + 6 + 8$ | $=$ | 20 | $=$ | $4 \cdot 5$ |
| $2 + 4 + 6 + 8 + 10$ | $=$ | 30 | $=$ | $5 \cdot 6$ |
- a. The sum is $\underline{20 \cdot 21}$. c. The sum is $\underline{21 \cdot 22}$.
 b. The sum is $\underline{19 \cdot 20}$. d. The sum is $\underline{20 \cdot 20}$.
- ____ 4. What is the intersection of plane $TUZY$ and plane $VUYZ$?



- a. \overleftrightarrow{UY} b. \overleftrightarrow{SW} c. \overleftrightarrow{TX} d. \overleftrightarrow{VZ}
- ____ 5. Name the ray that is opposite \overrightarrow{BA} .



- a. \overrightarrow{BD} b. \overrightarrow{BA} c. \overrightarrow{CA} d. \overrightarrow{DA}
- ____ 6. Which plane is parallel to plane $EFHG$?



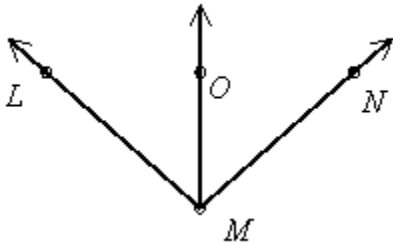
- a. plane $ABDC$ b. plane $ACGE$ c. plane $CDHG$ d. plane $BDHF$

7. If $EF = 2x - 12$, $FG = 3x - 15$, and $EG = 23$, find the values of x , EF , and FG . The drawing is not to scale.



- a. $x = 10$, $EF = 8$, $FG = 15$ c. $x = 10$, $EF = 32$, $FG = 45$
 b. $x = 3$, $EF = -6$, $FG = -6$ d. $x = 3$, $EF = 8$, $FG = 15$

8. \overrightarrow{MO} bisects $\angle LMN$, $m\angle LMO = 8x - 23$, and $m\angle NMO = 2x + 37$. Solve for x and find $m\angle LMN$. The diagram is not to scale.



- a. $x = 9$, $m\angle LMN = 98$ c. $x = 10$, $m\angle LMN = 114$
 b. $x = 9$, $m\angle LMN = 49$ d. $x = 10$, $m\angle LMN = 57$

Short Answer

9. Construct \overline{GH} so that $GH = PQ + RS$.

